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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/048,686 03/26/98 REFAI

W P-4015.108/E

EXAMINER

TM02/0516

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ART UNIT

PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

AMG

<b>Office Action Summary</b>	<b>Application No.</b> 09/048,686	<b>Applicant(s)</b> REFAI, WAIL M.
	<b>Examiner</b> Seema S Rao	<b>Art Unit</b> 2661

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(d).

**Status**

- 1) Responsive to communication(s) filed on 10 May 2001.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other: \_\_\_\_\_

*Claim Rejections - 35 USC § 102*

1. Claims **1, 4,-10, and 13-20** are rejected under 35 U.S.C. 102(e) as being anticipated by Sugital (U. S. 6,041,124).

Regarding claims **1, 8, 17, and 19**, the index channel information is anticipated by the index data in Fig. 13B. The claimed limitation, “receiving and decoding the index signal at the receiving station”. Selecting one or more information signals based on the index signal is disclosed in Fig. 13D. A receiver as in claim **19** anticipated by the mobile terminal device in Fig. 8 and in Fig. 9. A first signal processing and second processing means is anticipated by the elements 26, 27, and 28. A second processing means is anticipated by the elements 72 and 80. Control means for selectively activating second signal processing means based on the addressing information contained in index signal is disclosed in column 11, lines 36-43.

A broadband channel, as in claim **9**, anticipated by the CDMA information channel in Fig. 12. The receiving means demodulating and decoding the first index signal in real time, as in claims **4 and 13**, is disclosed in Fig. 5c, where index channel is received first and then the information packet is received. Primary data for later processing is being stored as in claims **5, 14, 18, and 20**, is anticipated by the storage 51 in Fig. 8. Identifying a particular receiver and corresponding packets in the information signal, as in claim **6**, is anticipated by the header comprising address of the mobile terminal device, in column 6, line 34. Packets in the index signal correspond to the packets in the primary data signal, as in claims **7 and 16**, is anticipated by the

receiving information index packet and subsequently receiving information packet as shown in Fig. 5C.

The relay station as in claim 8 anticipated by the cellular network in Fig.9. Retransmission of the information is anticipated by the retransmission of the index information as disclosed in Fig 9, from the cellular network element 61 to the mobile terminal device. A transmitting station, as in claim 17 anticipated by the base station unit of Fig. 12. A first and second transmitting means carrying broadband signals addressed to a particular terminal device are anticipated by the index information channel and traffic channel transmitting elements 72 and 73; 12 and 13; and 42 and 43. A plurality of receivers for receiving information from the transmitting station anticipated by the plurality of receivers as shown in Fig. 8, elements demodulators.

Start time of the information, as in claims 15 and 17, anticipates the corresponding channel assigned to the information channel of a particular receiver, as disclosed in column 6, lines 51-63. This very well anticipates the start time.

#### *Claim Rejections - 35 USC § 103*

2. Claims 2, 3, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugita (6,041,124) in view of Saito (U. S. 5,914,947).

The reference, Sugita, discloses all of the limitations of 2, and 11 however, it does not disclose the index channel being a narrow-band. The secondary reference, Saito, discloses a frequency band divided into f1 and f2 and f1 being used for the control information for the information to be accessed from the information on the frequency f2 band. However it is not taught that f1 is a narrowband. But it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify the frequency f1 to a narrowband channel carrying the control information. Motivation being low transmission cost because of low speed transmitter and receiver equipment.

The reference, Sugita, discloses all of the limitations of **12 and 3** however, it does not disclose the index channel and information channel are transmitted at the same rate. The reference, Saito, discloses transmission rate being same for both f1 and f2 frequency channel carrying control and information signal in column 7, line 18 and line 44, at 8.13Mbps.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frequency f1 of Saito transmitted at the same rate in the system of Sugita to have a simultaneous transmission both control and information reducing delay in the receiver.

*Response to Arguments*

Applicant's arguments filed May 10, 2001 have been fully considered but not persuasive. Examiner agrees with the arguments made by Applicants regarding the following subject matter. Transmitting an index signal on a narrow-band channel in contrast to primary data channel transmitted on a broad-band channel; a relay station extracting the index packets from the primary signal and packing them into an index channel; and retransmitting the index signal to respective receivers followed by a primary signal comprising data packets for the corresponding receivers. A relay station is a satellite is also not disclosed in the prior art of record.

In spite of the above information, claims **1, 8, 17, and 19** are broad enough to be rejected over the cited prior art as shown in the above paragraphs. For instance, none of the independent claims **1, 8, 17, and 19**, claim index channel and primary signal channel are narrow-band and broad band respectively. All of the independent claims claim a broad band information signal and an index signal. It is not evident from any of the independent claim that the index signal is a narrow-band signal. Neither a satellite relay station extracting index packets from a primary signal or an index channel comprising the extracted index packets is claimed. Additionally, there is no argument regarding the claim rejection for any of the particular claims.

Applicants argue that the information service channel comprising primary data packet is not the same as the service update packets as taught in the cited reference Sugita. Examiner completely agrees with it however, the primary data packets claimed does not convey that clearly. It is broadly anticipated by information packet of service update information, for a particular receiver. Receiver ID anticipates the address of a specific one of receivers and the information packet carries the service update information for those receivers. This very well anticipates the claimed subject matter.

Although Sugita describes a method of **broadcasting to all** subscribing terminals, it anticipates the claimed subject matter of transmitting address of the terminals followed by the information packet. Terminals examine **their individual address** for the reception of the information packet. This is the concept of the claimed subject matter.

Examiner agrees with the arguments regarding the art rejection of claims 1 and 3 over Saito and for the same reason, it has been withdrawn. For all of the above reasons examiner maintains the rejection for all the pending claims and makes the action final.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

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\*\*\* NOTICE \*\*\*

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policy as set forth in 37 CFR 1.136(a).

**ANY AMENDMENT OR REQUEST FOR RECONSIDERATION IN RESPONSE  
TO THIS FINAL OFFICE ACTION SHOULD BE DIRECTED TO:**

**Commissioner of Patents and Trademarks**

**BOX AF**

**Washington, D.C. 20231**

*By addressing all After Final Office action responses to the above address, processing time of the responses is reduced. This will result in more timely responses by the Office and should result in fewer requests for extensions of time.*

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seema S Rao whose telephone number is 703-308-5463. The examiner can normally be reached on 6.30-3.00.

Art Unit: 2661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned for regular communications and for After Final communications is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

*Seema S. Rao*  
Seema S Rao  
Primary Examiner  
Art Unit 2661

May 15, 2001